ABSTRACT

The present invention is to provide a metal surface-treating method which is capable of forming a zinc phosphate coat suitable for the cationic electrodeposition coating of a metallic shaped product, particularly a metallic shaped product having both an iron type metallic surface and a zinc type metallic surface and is suited to a closed system.

A metal surface-treating method which comprises a chemical conversion step of dipping a substrate in an acidic aqueous zinc phosphate solution, and using an aqueous zinc nitrite solution as an accelerator, said aqueous zinc nitrite solution being substantially free of calcium ion and containing 0 to 6500 ppm of sodium ion and 0 to 20 ppm of sulfate ion in case of assuming the concentration of zinc nitrite [$Zn(NO_2)_2$] to be 10 weight % as NO_2.